

WHAT IS CLAIMED IS:

1. An apparatus for creating image processing program,
comprising:
 - a program selecting unit that selects at least one watermarking
5 program from among a plurality of watermarking programs for inserting
electronic watermark data into moving image data that are encrypted,
compressed, or both encrypted and compressed;
 - an area selecting unit that selects at least one area for inserting
the selected program from among a plurality of areas in a processing
10 program that performs decrypting, expanding, or both decrypting and
expanding the moving image data; and
 - a program inserting unit that inserts the watermarking program
selected into the area selected.
- 15 2. The apparatus according to claim 1, wherein
the program selecting unit selects the watermarking program at
random, and
the area selecting unit selects the area at random.
- 20 3. The apparatus according to claim 1, wherein the electronic
watermark data include information unique to an image processing
apparatus that executes the processing program.
4. The apparatus according to claim 1, wherein the electronic
25 watermark data include a unique number of a tamper resistant module

composing an image processing apparatus that executes the processing program, and the unique number encrypted by a unique encryption key of the tamper resistant module.

5 5. The apparatus according to claim 1, further comprising:
 a parameter determining unit that randomly determines a
parameter necessary to operate the watermarking program selected.

6. The apparatus according to claim 1, further comprising:
10 a program rewriting unit that rewrites a jump destination
specified by a jump instruction in the processing program from any one
of the watermarking programs inserted by the program inserting unit
into another watermarking program.

15 7. The apparatus according to claim 6, wherein the program
rewriting unit rewrites the jump destination during an execution of the
processing program.

8. A method of creating image processing program, comprising:
20 selecting at least one watermarking program from among a
plurality of watermarking programs for inserting electronic watermark
data into moving image data that are encrypted, compressed, or both
encrypted and compressed;

 selecting at least one area from among a plurality of areas in a
25 processing program that performs decrypting, expanding, or both

decrypting and expanding the moving image data; and

inserting the watermarking program selected into the area selected.

- 5 9. The method according to claim 8, wherein
the selecting at least one watermarking program includes
selecting the watermarking program at random, and
the selecting at least one area includes selecting the area at
random.

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10. The method according to claim 8, wherein the electronic
watermark data include information unique to an image processing
apparatus that executes the processing program.

- 15 11. The method according to claim 8, wherein the electronic
watermark data include a unique number of a tamper resistant module
composing an image processing apparatus that executes the
processing program, and the unique number encrypted by a unique
encryption key of the tamper resistant module.

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12. The method according to claim 8, further comprising:
determining randomly a parameter necessary to operate the
watermarking program selected.

- 25 13. The method according to claim 8, further comprising:

rewriting a jump destination specified by a jump instruction in the processing program from any one of the watermarking programs inserted by the program inserting unit into another watermarking program.

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14. The method according to claim 13, wherein the rewriting is performed during an execution of the processing program.

15. A computer program for creating image processing program,
10 making a computer execute:

selecting at least one watermarking program from among a plurality of watermarking programs for inserting electronic watermark data into moving image data that are encrypted, compressed, or both encrypted and compressed;

15 selecting at least one area from among a plurality of areas in a processing program that performs decrypting, expanding, or both decrypting and expanding the moving image data; and

inserting the watermarking program selected into the area selected.

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16. The computer program according to claim 15, wherein the selecting at least one watermarking program includes selecting the watermarking program at random, and

the selecting at least one area includes selecting the area at
25 random.

17. The computer program according to claim 15, wherein the electronic watermark data include information unique to an image processing apparatus that executes the processing program.

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18. The computer program according to claim 15, wherein the electronic watermark data include a unique number of a tamper resistant module composing an image processing apparatus that executes the processing program, and the unique number encrypted by
10 a unique encryption key of the tamper resistant module.

19. The computer program according to claim 15, further making the computer execute:

determining randomly a parameter necessary to operate the
15 watermarking program selected.

20. The computer program according to claim 15, further making the computer execute:

rewriting a jump destination specified by a jump instruction in
20 the processing program from any one of the watermarking programs inserted by the program inserting unit into another watermarking program.

21. The computer program according to claim 20, wherein the
25 rewriting is performed during an execution of the processing program.